Alexandria Technical and Community College

MATH 1455: Applied Technical Mathematics

A. COURSE DESCRIPTION

Credits: 2
Lecture Hours/Week: 2
Lab Hours/Week: *.*
OJT Hours/Week: *.*

Prerequisites:
This course requires any of these seven prerequisites
  MATH 0322 - College Prep Technical Math (Minimum grade: 2.0 GPA Equivalent and Number of
    Years Valid: 5)
    A score of 18 on test ACT Math
    A score of 74 on test Accuplacer Arithmetic
    A score of 63 on test Accuplacer Elementary Algebra
    A score of 58 on test Accuplacer Intermediate Algebra
    A score of 2 on test Arithmetic
    A score of 250 on test Accuplacer NG Arithmetic

Corequisites: None
MnTC Goals: None

This course teaches math concepts used by engine technicians in trade and industry formulas. Emphasis is
on practical applications of ratios and percentages, measurement conversions, geometric relationships, and
use of many industry formulas. Prerequisite(s): College level math score on a placement test or a
minimum grade of "C" in MATH 0322 College Prep Tech Math.

B. COURSE EFFECTIVE DATES: 05/19/2014 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Converting measurements between systems
2. Applying geometric formulas such as perimeter, area, and volume
3. Problem solving using ratios, proportions, and percentages
4. Determining engine measurements
5. Problem solving using transmission and gear ratios
6. Applying formulas to hydraulic systems

D. LEARNING OUTCOMES (General)

1. The learner will select and utilize the appropriate industry formula to solve applied technical
   problems.
2. The learner will convert measurements within and between the US customary system and the metric
   system.
3. The learner will use problem solving techniques to solve applied technical problems, providing the
   answer in simplest form.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus
G. SPECIAL INFORMATION

None noted